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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/972,787	10/05/2001	David R. Friedman	10519/37	4130

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EXAMINER
ELLIS, KEVIN L

ART UNIT	PAPER NUMBER
2188	9

DATE MAILED: 06/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

Office Action Summary

	Application No.	Applicant(s)
	01/973787	Friedman et al,
	Examiner	Group Art Unit
	Kevin L. Ellis	2188

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____3_____MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication .
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

☒ Responsive to communication(s) filed on 5/13/02 _____.

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) _____1-50_____ is/are pending in the application.

    Of the above claim(s)_____ is/are withdrawn from consideration.

☐ Claim(s)_____ is/are allowed.

☒ Claim(s)_____1-50_____ is/are rejected.

☐ Claim(s)_____ is/are objected to.

☐ Claim(s)_____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The proposed drawing correction, filed on_____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on_____ is/are objected to by the Examiner.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 11 9(a)-(d).

    ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

    ☐ received.

    ☐ received in Application No. (Series Code/Serial Number)_____.

    ☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

    *Certified copies not received:_____.

Attachment(s)

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 45,2,48   ☐ Interview Summary, PTO-413

☒ Notice of Reference(s) Cited, PTO-892   ☐ Notice of Informal Patent Application, PTO-152

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948   ☐ Other_____

Office Action Summary

Detailed Action

1.   Claims 1-50 are presented for examination.

2.   Information disclosed and listed on PTO 1449 was considered.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 USC § 102 that form

the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b)   the invention was patented or described in a printed publication in this or a
foreign country or in public use or on sale in this country, more than one year prior to
the date of application for patent in the United States.

4.   Claims 1, 2, 5, 19, and 20 are rejected under 35 USC § 102(b) as being anticipated by

Kikuchi, U.S. Patent 6,058,047.

A)   As to claims 1, 5, 19, and 20, Kikuchi discloses the invention as claimed.

Kikuchi teaches having a write-many memory device that is limited in the number of

times a block of memory can be written to (see Col 1 Line 65 to Col 2 Line 20). The

system of Kikuchi only allows writing to the memory if there has been fewer than N

number of writes to a block.

B)   As to claim 2, there is a "sideband" field for storing the number of writes that

have occurred to the memory (see Fig 1).

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 USC § 103 which forms the basis for all obviousness

rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or
described as set forth in section 102 of this title, if the differences between the subject
matter sought to be patented and the prior art are such that the subject matter as a
whole would have been obvious at the time the invention was made to a person having
ordinary skill in the art to which said subject matter pertains. Patentability shall not be
negatived by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

6.   Claims 3, 4, 6-18, and 21-50 are rejected under 35 USC § 103 as being unpatentable over Kikuchi, U.S. Patent 6,058,047.

    A)   As to claims 3 and 21, Kikuchi discloses the invention substantially as claimed. However, Kikuchi does not specifically disclose a sideband field to indicate if the block is free or not. It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a "sideband field" that indicates whether the block is free or not. In fact, this is a fairly common indicator for each block that is used in flash type memory. Without a free indicator the system would not know if a block had been written to or not. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a free indicator in the system of Kikuchi that is checked before a block is written to.

    As for the sideband field to indicate how many times the block has been written to of claim 21, this is shown by Kikuchi (see Fig 1).

    B)   As to claims 4, 6, and 12-16, Kikuchi teaches that the memory is used as a memory disk (see Fig 2). It was common to use a flash type memory is such a manner. By using the memory as a "disk" the host computer would store data to the memory using a file structure much like it would to a disk drive. Accordingly, the system of Kikuchi would use a file structure for storing data to the memory and would utilize the information of the file structure (location of blocks, free blocks, etc) during the storing of data to the memory and the retrieval of information from the memory.

    C)   As to claims 7, 8, 24-30, and 45, Kikuchi discloses the invention substantially as claimed. However, Kikuchi does not specifically disclose adjusting the number of times a block can be written to to something less then the allowable number of writes of

the circuitry. It would have been obvious to one having ordinary skill in the art at the time the invention was made that a different number, less then the maximum allowable writes, could also be used and stored in the sideband field to limit the number of writes to the memory. Accordingly, it would have been obvious to adjust the number to any number that the manufacturer wanted to limit the number of writes for the memory to be.

D)   As to claim 9, Kikuchi discloses the invention substantially as claimed. The limitations of claim 9 have already been addressed with regard to claims 1 and 3 above and claim 9 is rejected similarly.

E)   As to claims 10 and 11, it would have been obvious to one having ordinary skill in the art at the time the invention was made that the order of storing a file to the blocks and updating the count of writes to the block can be performed in any order and would have the same end result.

F)   As to claims 17, 18, 31-37, 22, 23, 38-44, and 46, these claims are similar to claims 7, 8, 24-30, and 45 above and are rejected for the same reasons.

G)   As to claims 47-50, Kikuchi discloses the invention substantially as claimed. There is a modular memory device (see Fig 2) that can be adjusted by the manufacturer to limit the number of writes to the blocks of memory (see Col 1 Line 65 to Col 2 Line 20) by use of a "sideband field" that indicates the number of times the block can be written to (see Fig 1). However, Kikuchi does not specifically disclose making the blocks of memory into write-once memory cells (i.e. limiting the number of writes to one). It would have been obvious to one having ordinary skill in the art at the time the invention was made that the number of writes to the memory could be limited to 1 just as easily as it is limited to 100,000 or 1,000,000 (see Col 2 Lines 3-7) by simply storing a 1 in the count value.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

8. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) days from the mail date of this letter. Failure to respond within the period for response will result in **ABANDONMENT** of the application (see 35 USC 133, MPEP 710.02, 710.02(b)).

9. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Kevin Ellis whose telephone number is (703) 305-9659. The Examiner can normally be reached on the weekdays from 6:00am to 2:30pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Matt Kim, can be reached on (703) 305-3821.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:
(703)746-7239, (for formal communications intended for entry)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Kevin L. Ellis
Primary Examiner
June 2, 2003